

LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A device for producing a rotating flow in a rectangular flow duct which comprises a flue-gas outlet of an incineration plant, comprising: a flow duct having four walls in opposing wall pairs and a transition region from a combustion chamber of the incineration plant to the flue-gas outlet; a plurality of nozzles for media which can be emitted as a jet, the nozzles being arranged in an injection plane on two opposite walls defining the flow duct and having a wall width b , the nozzles including first nozzles oriented in a row in each case in at least one first wall section of the two opposite walls so that the first nozzles inject a jet into the injection plane wherein the injected jet and the wall form an angle γ lying in the injection plane, the angle γ being at least approximately 90° , a sum L of lengths l of the first wall sections being at least approximately $0.4b < L < 0.8b$, and the at least one first wall section of the one wall being diagonally opposite the at least one first wall section of the opposite wall; and second nozzles arranged in each case in the injection plane in at least one second wall section of the two opposite walls so that for an angle β lying in the injection plane between the jets injected from the first and the second nozzles $|\beta| > 0^\circ$, each of the two opposite walls having at least two first wall sections so as to produce at least two vortices rotating in opposite directions, each of the two opposite walls additionally having two second wall sections, in each case a first wall section and a second wall section of the one wall forming a vortex region with the directly opposite second wall section and first wall section respectively of the opposite wall, the jets injected by the second nozzles being inclined toward the jets injected by the first nozzles by $+|\beta|$ in a first vortex region and by $-|\beta|$ in a second vortex region.

2. (original) A device as defined in claim 1, wherein the opposite walls each have a first wall section, the first wall sections, with a center longitudinal axis of the flow duct as an

axis of symmetry, being centrosymmetrically opposite one another and defined on one side by the adjacent wall.

Claim 3 (canceled).

4. (previously presented) A device as defined in claim 1, wherein the angle β , $20^\circ < |\beta| < 50^\circ$.

5. (previously presented) A device as defined in claim 1, wherein the at least one second wall section of the one wall is diagonally opposite the at least one second wall section of the opposite wall.

6. (previously presented) A device as defined in claim 1, wherein, to produce a rotating vortex, each of the two opposite walls has a first wall section and a second wall section, the first and the second wall sections, with a center longitudinal axis of the flow duct as an axis of symmetry, in each case being centrosymmetrically opposite one another and defined on one side by the adjacent wall.

Claims 7-8 (canceled).

9. (currently amended) A device ~~as defined in claim 1~~ for producing a rotating flow in a rectangular flow duct which comprises a flue-gas outlet of an incineration plant, comprising: a flow duct having four walls in opposing wall pairs and a transition region from a combustion chamber of the incineration plant to the flue-gas outlet; a plurality of nozzles for media which can be emitted as a jet, the nozzles being arranged in an injection plane on two opposite walls defining the flow duct and having a wall width b, the nozzles including first nozzles oriented in a row in each case in at least one first wall section of the two opposite walls so that the first nozzles inject a jet into the injection plane wherein the injected jet and the wall form an angle γ lying in the injection plane, the angle γ being at least approximately 90° , a sum L of lengths l of

the first wall sections being at least approximately $0.4b < L < 0.8b$, and the at least one first wall section of the one wall being diagonally opposite the at least one first wall section of the opposite wall; and second nozzles arranged in each case in the injection plane in at least one second wall section of the two opposite walls so that for an angle β lying in the injection plane between the jets injected from the first and the second nozzles $|\beta| > 0^\circ$, wherein the second nozzles of the second wall section are oriented with an injection component at an angle α relative to the injection plane.

10. (original) A device as defined in claim 9, wherein α is between 5° and 15° .

11. (original) A device as defined in claim 9, wherein the second nozzles are arranged in a common plane in a direction of flow in the flow duct.

12. (original) A device as defined in claim 1, wherein all four walls of the flow duct have a first wall section having first nozzles, the first wall sections being arranged in a peripheral direction against the rotating flow in each case at a start of the wall and at a distance from the first wall section of an adjacent wall.

13. (original) The device as defined in claim 12, wherein the nozzles of all four walls lie in a common injection plane.

14. (currently amended) A device ~~as defined in claim 12~~ for producing a rotating flow in a rectangular flow duct which comprises a flue-gas outlet of an incineration plant, comprising: a flow duct having four walls in opposing wall pairs and a transition region from a combustion chamber of the incineration plant to the flue-gas outlet; a plurality of nozzles for media which can be emitted as a jet, the nozzles being arranged in an injection plane on two opposite walls defining the flow duct and having a wall width b , the nozzles including first nozzles oriented in a row in each case in at least one first wall section of the two opposite walls so that the first nozzles inject a jet into the injection plane wherein the injected jet and the wall form an angle γ

lying in the injection plane, the angle γ being at least approximately 90° , a sum L of lengths l of the first wall sections being at least approximately $0.4b < L < 0.8b$, and the at least one first wall section of the one wall being diagonally opposite the at least one first wall section of the opposite wall; and second nozzles arranged in each case in the injection plane in at least one second wall section of the two opposite walls so that for an angle β lying in the injection plane between the jets injected from the first and the second nozzles $|\beta| > 0^\circ$, all four walls of the flow duct having a first wall section having first nozzles, the first wall sections being arranged in a peripheral direction against the rotating flow in each case at a start of the wall and at a distance from the first wall section of an adjacent wall, wherein the nozzles [[are]] being arranged in two parallel injection planes which are at a distance from one another in a flow direction, opposite nozzles lying in a common injection plane.

15. (currently amended) A device as defined in claim [[7]] 1, wherein wall sections one of diagonally opposite one another and centrosymmetrically opposite one another have approximately a common length l .

16. (currently amended) A device ~~as defined in claim 1~~ for producing a rotating flow in a rectangular flow duct which comprises a flue-gas outlet of an incineration plant, comprising: a flow duct having four walls in opposing wall pairs and a transition region from a combustion chamber of the incineration plant to the flue-gas outlet; a plurality of nozzles for media which can be emitted as a jet, the nozzles being arranged in an injection plane on two opposite walls defining the flow duct and having a wall width b , the nozzles including first nozzles oriented in a row in each case in at least one first wall section of the two opposite walls so that the first nozzles inject a jet into the injection plane wherein the injected jet and the wall form an angle γ lying in the injection plane, the angle γ being at least approximately 90° , a sum L of lengths l of the first wall sections being at least approximately $0.4b < L < 0.8b$, and the at least one first wall section of the one wall being diagonally opposite the at least one first wall section of the opposite wall; and second nozzles arranged in each case in the injection plane in at least one second wall section of the two opposite walls so that for an angle β lying in the injection plane between the

jets injected from the first and the second nozzles $|\beta| > 0^\circ$, wherein feed pressure, with which the media which can be emitted in the form of a jet pass into the nozzles, is between 500 Pa and 5000 Pa, and further comprising a control system operative to independently control flow rates for nozzles arranged on various of the walls.

17. (original) A device as defined in claim 1, wherein the nozzles are annular gap nozzles.

18. (original) A device as defined in claim 1, wherein the nozzles are operative to emit jets of secondary air and recirculated flue gas.

19. (currently amended) ~~A device as defined in claim 13~~ A device for producing a rotating flow in a rectangular flow duct which comprises a flue-gas outlet of an incineration plant, comprising: a flow duct having four walls in opposing wall pairs and a transition region from a combustion chamber of the incineration plant to the flue-gas outlet; a plurality of nozzles for media which can be emitted as a jet, the nozzles being arranged in an injection plane on two opposite walls defining the flow duct and having a wall width b , the nozzles including first nozzles oriented in a row in each case in at least one first wall section of the two opposite walls so that the first nozzles inject a jet into the injection plane wherein the injected jet and the wall form an angle γ lying in the injection plane, the angle γ being at least approximately 90° , a sum L of lengths l of the first wall sections being at least approximately $0.4b < L < 0.8b$, and the at least one first wall section of the one wall being diagonally opposite the at least one first wall section of the opposite wall; and second nozzles arranged in each case in the injection plane in at least one second wall section of the two opposite walls so that for an angle β lying in the injection plane between the jets injected from the first and the second nozzles $|\beta| > 0^\circ$, all four walls of the flow duct having a first wall section having first nozzles, the first wall sections being arranged in a peripheral direction against the rotating flow in each case at a start of the wall and at a distance from the first wall section of an adjacent wall, the nozzles of all four walls lying in a common injection

plane, wherein the nozzles are annular gap nozzles having a core jet that consists of recirculated flue gas and an annular jet that consists of secondary air.

20. (original) A device as defined in claim 14, wherein the nozzles are annular gap nozzles having a core jet that consists of recirculated flue gas and an annular jet that consists of secondary air.

21. (original) A device as defined in claim 1, wherein the injection plane lies in a region of a flame cover arranged in the transition region, the nozzles being arranged at least one of so as to pass through the flame cover and so as to be in walls laterally below the flame cover so that the nozzles cool the flame cover with injected jets.